

DETAILED ACTION

Claims 1-11 and 14-23 are currently pending.

Claim Rejections - 35 USC § 112

Rationale for invoking §112 6¶

Examiners will apply § 112, ¶ 6 to a claim limitation that meets the following conditions:

- (1) The claim limitation uses the phrase “means for” or “step for” or a **non-structural term that does not have a structural modifier**;
- (2) the phrase “means for” or “step for” or the non-structural term recited in the claim is modified by functional language; and
- (3) the phrase “means for” or “step for” or **the non-structural term** recited in the claim is not modified by sufficient structure, material, or acts for achieving the specified function.

This modifies the 3-prong analysis in MPEP § 2181, which will be revised in due course. *See Supplemental Examination*, 76 FR at 7167.

Regarding claims 1, 10 and 18, the claim recites, *inter alia*, an apparatus comprising: a resource providing device to perform a function, an access control device to perform a function, and system contain the devices to perform a function.

“When the claim limitation does not use the phrase “means for” or “step for,” examiners should determine whether the claim limitation uses a nonstructural term (a

term that is simply a substitute for the term “means for”). Examiners will apply § 112, ¶6 to a claim limitation that uses a nonstructural term associated with functional language, unless the nonstructural term is (1) preceded by a structural modifier, defined in the specification as a particular structure or known by one skilled in the art, that denotes the type of structural device (e.g., “filters”), or (2) modified by sufficient structure or material for achieving the claimed function. The following is a list of non-structural terms that may invoke § 112, ¶6: “mechanism for,” “module for,” “device for,” “unit for,” “component for,” “element for,” “member for,” “apparatus for,” “machine for,” or “system for.” This list is not exhaustive, and other non-structural terms may invoke § 112, ¶6.” *See id.*

In claims 1, 10 and 18, the apparatus is directed toward various units “for” or “to” perform various functions. The units are preceded by various labeling descriptions, but words like communication , access permission , storage, existence, access discard and access rejection only describe the functionality descriptions and are not structural modifiers, nor defined in the specification as having a particular structure. Additionally, the actual functional language does not provide any structure modification to the described system and devices. As result, the modules are non-structural terms and invoke §112 ¶6.

Therefore each of the means invoke §112 ¶6 and claims 1-20 are construed under 112 6th ¶.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. A system and devices as recited in claims 1, 10, and 18 does not possess any corresponding structure in the specification to support the "communication , access permission , storage, existence, access discard and access rejection" units "for", "to" functions which have been construed under §112 ¶6 and thus requires such a claim to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Claims 2-9 11-17 and 19-20 are rejected based on their dependence to claims 1, 10 and 18.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 10 and 18 recite the elements "communication, access permission , storage, existence, access discard and access rejection units" is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written

description fails to disclose the corresponding structure, material, or acts for the claimed function. Claims 2-9 11-17 and 19-20 are rejected based on their dependence to claims 1, 10 and 18.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3-5, 8-10, 14, 17-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al US 2004/0073814, and further in view of Brockway et al US 2004/0210897.

Regarding claim 1, Mizayaki teaches an access control device (**Figure 1 Group Administration Device(GAD) 10**) for controlling an access from a resource use device(**Figure 1 user device 20**)to a resource providing device(**Figure 1 Service provider device 30**) for using a resource provided by the resource providing device(**provider device provides a server, Abstract**). Mizayaki teaches that the access control device controls the communication of the handset and base station (**Figure 2 shows permission request and granting by GAD**) via a communication unit (**a communication is inherent in order for the GAD to perform the functions of figure 2 and6**). Mizayaki teaches an access permission unit for instructing the resource providing device via the communication unit to permit an access from the resource use device and a storage unit for storing information on the resource use device which has been permitted to access by the access permission unit as management information (**the GAD provides the permission information that will be used for the user**

device and provider device to communicate, Figure2 ST10). Mizayaki teaches that the GAD also serves as an existence check unit for checking a communication state with the resource use device the management information of which is stored in the storage unit, via the communication unit **(the information management section of the GAD determine the eligibility or ineligibility of the user to use the service Figure 10 ST4)** and an access discard unit for instructing the resource providing device via the communication unit to reject an access from the resource use device, communication with which is determined to be disconnected by the existence check unit **(if ineligible the user will not get the proper permission information and will fail the authority proof ST25 for Figure 3).**

Miizayaki teaches determining the eligibility of a client to access a network and allowing access to a client if the client is eligible to receive the service. Miyazaki does not teach periodically determining the continued existence of a user and rejecting access of said user if the continued existence of the user can not be confirmed. Brockway teaches a method for automatically installing a device detecting when the device is no longer present and revoking the access of the device. Brockway teaches an existence check unit that transmits an existence check instruction to the resource use device(**peripherals**) of which the management information is stored in the storage unit, that is configured to receive a response to the existence check instruction from the resource use device, and that confirms whether or not a response to the existence check instruction is received from the resource use device which has been permitted to access the resource providing device by the access permission unit, via the

communication unit; (“**One way that the server can determine when a newly connected peripheral device is found is by including in its periodic request to the client a specific condition that the client return an enumeration of all peripheral devices connected to the client. The client queries the I/O ports of the client to make this determination and transmits the enumeration back to the server, where the server stores the enumeration in server memory. On a subsequent request for a similar enumeration, the server compares the enumeration received from the client in response to the subsequent request with the enumeration stored in memory. If a peripheral device is listed in the subsequent enumeration which was not listed in the initial enumeration, then the server can identify the recent addition as a peripheral device that is newly connected.**”, ¶13). Brockway teaches an access discard unit that instructs the resource providing device via the communication unit to reject an access from the resource use device from which a response to the existence check instruction is not received by the existence check unit (“**Similarly, if the initial enumeration lists a peripheral device that is not listed in the subsequent enumeration, the server will also be aware that the identified peripheral device has been removed from the system and can make accommodations for deactivating or removing that peripheral device from the system**”, ¶14).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Mizayaki with the rejection of access after a device has been disconnected. The reason for this modification would be to solve the problem of having

to manually install and uninstall a removed device from memory(see ¶54, although it discusses installation of peripheral devices as a motivation, a person of ordinary skill would recognize that automatic un-installation is also a motivation).

Regarding claim 10, Mizayaki teaches a communication unit for communicating with the access control device and the resource use device **(a communication unit is inherent for the operation of the access control section 31b of Figure 5)**. Mizayaki teaches a user management section that serves as a storage unit for storing information on the resource use device intended by an instruction given by the access control device via the communication unit as management information (**¶224**). Mizayaki teaches an access permission unit for permitting an access from the resource use device, the management information of which is stored in the storage unit **(access control section 31b of Figure 5)**. Mizayaki teaches an existence check unit for checking a communication state with the access control device via the communication unit **(authority verification unit 33 of Figure 5)** and an access rejection unit for rejecting an access from the resource use device permitted to access by the access control device, communication with which is determined to be disconnected by the existence check unit **(access control section 31b of Figure 5, see also ¶170 discussing success or failure of authority validation)** Mizayaki teaches that the information on the resource use device includes information for identifying the resource use device and information for identifying the access control device which has permitted the resource use device to access **(User management section has authority proof and usage history information that describes which user are eligible and which**

providers provided access to services ¶(226-228)The switch tells the base station to reject access by not replying to the base state by the time the timeout period ends(**Figure 7 Step 236**).

Miizayaki teaches determining the eligibility of a client to access a network and allowing access to a client if the client is eligible to receive the service. Miyazaki does not teach periodically determining the continued existence of a user and rejecting access of said user if the continued existence of the user can not be confirmed. Brockway teaches a method for automatically installing a device detecting when the device is no longer present and revoking the access of the device. Brockway teaches an existence check unit that transmits an existence check instruction to the resource use device of which the management information is stored in the storage unit, that is configured to receive a response to the existence check instruction from the resource use device, and that confirms whether or not a response to the existence check instruction is received from the resource use device which has been permitted to access the resource providing device by the access permission unit, via the communication unit;(**" One way that the server can determine when a newly connected peripheral device is found is by including in its periodic request to the client a specific condition that the client return an enumeration of all peripheral devices connected to the client. The client queries the I/O ports of the client to make this determination and transmits the enumeration back to the server, where the server stores the enumeration in server memory. On a subsequent request for a similar enumeration, the server compares the enumeration received from the client in**

response to the subsequent request with the enumeration stored in memory. If a peripheral device is listed in the subsequent enumeration which was not listed in the initial enumeration, then the server can identify the recent addition as a peripheral device that is newly connected. “, ¶13). Brockway teaches an access discard unit that instructs the resource providing device via the communication unit to reject an access from the resource use device from which a response to the existence check instruction is not received by the existence check unit (**“Similarly, if the initial enumeration lists a peripheral device that is not listed in the subsequent enumeration, the server will also be aware that the identified peripheral device has been removed from the system and can make accommodations for deactivating or removing that peripheral device from the system”, ¶14**). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Mizayaki with the rejection of access after a devices has been disconnected. The reason for this modification would be to solve the problem of having to manually install and uninstall a removed device from memory(see ¶54, although it discusses installation of peripheral devices as a motivation, a person of ordinary skill would recognize that automatic un-installation is also a motivation).

Regarding claim 18, the limitations in claim 18 have already been discussed as they are covered by the discussion of claims 1 and 10, above. Furthermore Mizayaki teaches the limitation of claim 18 that recites an access from the resource use device intended by the instruction given by the access control device via the resource providing

communication unit (**GAD send results of verification process to service provider device indicating validity or invalidity ¶217**).

Regarding claims 3 and 4 Mizayaki further teaches wherein the information on the resource use device is information for identifying the resource use device and information for identifying the resource providing device for accepting an access from the resource use device (**¶213, ¶242 accounting information contain data on the usage of a particular user and which device provided such a service**) .

Regarding claims 5, 14 and 19, Mizayaki further teaches the information on the resource use device includes information on a command issued by the resource use device when accessing the resource providing device (**user send a request for a specific service the user wishes to use ¶162 the services used are recorded for accounting purposes**).

Regarding claim 8, Mizayaki further teaches an existence check response unit for responding to the resource providing device via the communication unit when receiving a communication state check request from the resource providing device via the communication unit (**GAD send results of verification process to service provider device indicating validity or invalidity ¶217**).

Regarding claims 9, and 17 Mizayaki further teaches an access control device according to claim 1, wherein: the communication unit communicates with the resource use device via wireless communication (**¶184 when the resource use device is a cell phone it is inherent that cell phones have limited ranges**).

Regarding claim 22, Mizayaki further teaches the communication unit of the access control device directly communicates with the resource use device independently from any communication with the resource providing device and independently from any communication through the resource providing device **(It is clear from figure 1 that the control device, provider device and user device can communicate without having to go through one another).**

Claims 2, 6, 7, 11, 15, 16, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizayak/Brockway as applied to claim 1 and 10 above, and further in view of Thomsen US 7,194,004

Regarding claims 2 and 11, Mizayaki teaches a system for instructing a providing device to grant access to a user device. Mizayaki/Brockway is silent as to whether user device information that is invalid is deleted. Thomsen teaches deleting the information on the resource use device, communication with which is determined to be disconnected, from the storage unit **(Thomsen: Col 10 Lines 25 -27)**. Thomsen teaches that this is done for both the resource control device and the resource providing device since these the trusted lists are propagated to all devices in the network. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Mizayaki/Brockway with periodic renewing of the trusted list of Thomsen. The reason for this modification would be to periodically update the list of approved devices so that unauthorized access can be prevented.

Regarding claim 6, the combination of Thomsen and Mizayaki/Brockway has been discussed above. Thomsen further teaches that the access permission unit notifies the resource providing device of the information on the resource use device to be permitted to access, via the communication unit **(Thomsen: sending a list of trusted devices to all devices in a trusted subnet Col 7 Lines 59-63).**

Regarding claims 7 and 15, the combination of Thomsen and Mizayaki/Brockway has been discussed above. Thomsen further teaches that the access discard unit notifies the resource providing device of the information on the resource use device, communication with which is determined to be disconnected, and when instructed by the access control device via the communication unit to reject an access from the resource use device, the access rejecting unit rejects an access from the resource use device intended by the instruction**(Thomsen: devices are removed periodically from the trusted lists are not longer given access Col 10 Lines 25 -27).**

Regarding claim 16, Thomsen further teaches the access rejecting unit deletes the information on the resource use device intended by the instruction from the storage unit **(Thomsen: Col 10 Lines 12- 15)).**

Regarding claim 20, Thomsen further teaches that the resource providing device constitutes a gateway to connect to the internet **(Thomsen: the firewall is a gateway to the internet access to which is governed by the authentication with the authentication server 310, see Figure 3 and Col8 Lines 1-5).**

Regarding claims 21 and 23, Thomsen further teaches the access permission unit is operable to instruct the resource providing device to permit an access from the

resource use device before the resource use device has had any access to the resource providing device (**Thomsen: the trusted list indicates which devices can be given access even before the requesting device attempts such access Col 7 Lines 59-63**).

Applicant's Arguments

The applicant's arguments that the algorithms present in figure 1, 4, 6-14 are sufficient to provide support for the claims as interpreted under 112 6th ¶ has been considered but found un-persuasive. 112 6th ¶ requires the corresponding structure to describe how the functions construed under 112 6th ¶ are implemented. Figures 1, 4, 6-14 are insufficient to provide such a description. Figures 1, 4, 6-14 show the general functional blocks, or merely repeat the functions that are recited in the claims. Claim 1 recites an access permission unit that instructs the resource providing device via the communication unit to permit access from the resource use device. Figure 10 step 13 appears to describe such a function. Figure 10 step 13 does not provide any details as to how this is done. No such detail is provided for in the rest of figure 10 or any of the figures. The figures recite general functions similar to the claims but they do not provide any details. The instructing by the access permission unit could be done by sending message from access control device via Ethernet to the providing device wherein the message has a header with a specific allow permission tag. The act of instructing could be accomplished by a lack of negative response by the access control device, wherein

the providing device knows to grant access after a period time has elapsed without a negative response from the control device. Such detail descriptions of how the functions are required to turn a general purpose computer into a special purpose computer. Therefore the applicant has failed to identify sufficient support for the claims as construed under 112 6th ¶. The rejection is maintained.

The applicant argues that the combination of Miyazaki and Brockway fails to teach "an existence check unit that confirms whether or not a response to the existence check instruction is received, and an access discard unit that instructs the resource providing device to reject an access from the resource use device from which a response to the existence check instruction is not received by the existence check unit.". The applicant states that

By contrast, paragraph 0013 of the Brockway et al. reference discloses a determination of whether peripheral devices of each client are connected to the network, but does not determine whether each client is connected to the network. Each client transmits to the server a list of peripheral devices connected to the client; however, if the client is no longer connected to the network, the server cannot receive the list from the client, and the server does not perform the existence check for the peripheral devices of the client. Accordingly, the server of the Brockway reference does not disclose an existence check unit that confirms whether or not a response to an existence check instruction is received, and likewise does not disclose an access discard unit that instructs the resource providing device to reject an access from the resource use device from which a response is not received.

The examiner disagrees that the combination of Miyazaki and Brockway fails to teach acts of the existence check and access discard units. The claim recites "an existence check unit that transmits an existence check instruction to the resource use device of which the management information is stored in the storage unit, that is configured to receive a response to the existence check instruction from the resource use device, and that confirms whether or not a response to the existence check

instruction is received from the resource use device which has been permitted to access the resource providing device by the access permission unit, via the communication unit; and
an access discard unit that instructs the resource providing device via the communication unit to reject an access from the resource use device from which a response to the existence check instruction is not received by the existence check unit."

The examiner interpreted such claim limitations to describe an existence check unit that confirms the existence of a resource use device, of which information on the resources use device is stored in a storage unit. The existence check unit confirms whether or not a response has been received from the resource use device which has been previously permitted access via the communication unit.

In Brockway the existence check unit is located in the server just as concluded by the applicant. The resource use device are the peripherals attached to each client and not the client itself as presented in the applicant's arguments. The server is also the providing device. The server confirms the existence of the peripherals by sending a request to the client which in turn polls the peripherals. Although this request is sent first to the client, the request is clearly directed toward finding and confirming peripherals, and not the client itself. Periodically the server resends the request, this request confirms the continued existence of previously found peripherals or establishes access for new peripherals and stores information on the peripheral. Thus it is clear that after a peripheral(i.e. resource use device) is found such a device now fits the limitation of a resource use device that "has been permitted access".

Regarding the functions of access discard unit the examiner interpreted such limitations to describe that if the existence of the resource use device can not be

confirmed, access by the resource uses device is rejected by the providing device as instructed by the existence check unit.

In Brockway we can clearly see that after the initial establishment of a peripheral. The server periodically polls for the continued existence of the peripheral. If the peripheral does not respond the server deems the peripheral to be disconnected and deactivates the device on the server. The peripheral device is prevented from accessing the server until a later time when it has responded to the periodic polling request from the server and re-established the connection.

Regarding the motivation to combine it is clear that both Miyazaki and Brockway both regard methods and systems for providing access to a resource use device and are clearly analogous art. The motivation to combine Brockway with Miyazaki would be to provide of automatic deactivating of a resources use device. A person of ordinary skill in the art would clearly the see the benefit of a system that automatically determines that a resources use device is no longer active and de-allocates resources(space in RAM, registry entries etc...) that had been assigned for providing access to the resource use device. In such a system such de-allocated resources could be assigned to other resource use device without manual intervention by an administrative user. The resource use device in Brockway may not be identical to that of Miyazaki but it that in both references the resource use device, utilize system resources that must be maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOM Y. CHANG whose telephone number is (571)270-5938. The examiner can normally be reached on Monday - Thursday from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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/T. Y. C./
Examiner, Art Unit 2456

/Michael Won/
Primary Examiner
October 14, 2011